

What is claimed is:

1. A musical tone generation apparatus which incorporates a processing device, a music synthesizer and operators, comprising:
- a readout for reading function setting information from an extension board being installed, the function setting information being provided with respect to at least one extended function installed on the extension board;
 - an incorporator for incorporating the extended function of the extension board based on the function setting information such that the extended function is set and controlled by the operators; and
 - a sender for sending extended-function setting information to the extension board, wherein the extended-function setting information is related to the extended function of the extension board and is produced in response to operations applied to the operators.
2. A musical tone generation apparatus according to claim 1 wherein the extension board corresponds to a tone color extension board that provides at least one extended tone color which differs from tone colors being installed in advance, so that the extended function corresponds to a sequencer function that enables reproduction of a sound pattern using the extended tone color.
3. A musical tone generation apparatus according to claim 1 wherein the extension board corresponds to a tone color extension board that provides at least one extended tone color which differs from tone colors

Suba

09585243 053100

being installed in advance, so that the extended function corresponds to a sequencer function that enables sequential generation of musical tones of an arpeggio using the extended tone color.

4. A musical tone generation apparatus according to claim 1 further comprising an I/O interface for interconnection with the extension board, so that the readout reads the function setting information from the extension board by way of the I/O interface, while sender sends the extended-function setting information to the extension board by way of the I/O interface.

5. A musical tone generation apparatus according to claim 1 wherein the operators are used for an extended-function setting process regarding the extended function of the extension board and a music-synthesis setting process regarding the music synthesizer.

6. A musical tone generation apparatus according to claim 2 wherein the extension board installs a plurality of extended tone colors, each of which has a decision whether to enable reproduction of the sound pattern.

7. A musical tone generation apparatus according to claim 3 wherein the extension board installs a plurality of extended tone colors, each of which has a decision whether to enable sequential generation of the musical tones of the arpeggio.

8. A musical tone generation apparatus according to claim 1 wherein

09585243.053100

1. A method for providing an extended function accompanied with at least one sound factor of the first tone generator, comprising:

a) reading the function setting information from the response to a power-on event;

b) installing a first tone generator on a board being installed with a first tone generator;

c) providing an extension of at least one sound factor of the first tone generator in advance with regard to music reproduction;

d) executing an extended function accompanied with at least one sound factor of the first tone generator.

2. A method according to claim 1 wherein the extender is a second tone generator that provides an extended tone color in an original tone color being installed in the first tone generator, while the executor executes reproduction of a sound using the extended tone color provided by the second tone generator.

3. A method according to claim 1 wherein the extender is a second tone generator that provides an extended tone color in an original tone color being installed in the first tone generator, while the executor executes reproduction of musical data using the extended tone color.

4. A method according to claim 10 wherein the extender

12. An extension/board according to claim 10 wherein the extender

provides a plurality of extended tone colors, each of which has a decision whether to enable reproduction of the sound pattern.

13. An extension board according to claim 11 wherein the extender provides a plurality of extended tone colors, each of which has a decision whether to enable reproduction of the musical tones of the arpeggio.

14. An extension board according to claim 9 wherein the extender corresponds to an effector that imparts an extended effect to musical tones generated by the first tone generator, while the executor corresponds to a sequencer enabling sequential generation of extended-effect-imparted musical tones such that the extended-effect-imparted musical tones are sequentially generated at timings which are shifted from timings for generation of the musical tones.

15. A musical tone generation system comprising:

a musical tone generation device incorporating a first music synthesizer that synthesizes and generates first musical tones having a prescribed tone color in response to key-operation information; and

a tone color extension board being installed in the musical tone generation device to provide an extended tone color corresponding to an extension of the prescribed tone color,

wherein said tone color extension board comprises

a sequencer for enabling reproduction of a sound pattern in response to the key-operation information which is supplied from the musical tone

00585243 "053100
007550" E4258560

a second music synthesizer that synthesizes and generates second musical tones using the extended tone color based on the sound pattern being reproduced, so that the second musical tones using the extended tone color are supplied to the musical tone generation device in which the second musical tones are mixed together with the first musical tones to produce mixed musical tones.

17. A musical tone generation system according to claim 15 further comprising an effector that imparts an effect to the mixed musical tones.

a musical tone generation device incorporating a first music synthesizer that synthesizes and generates first musical tones using a prescribed tone color in response to key-operation information; and

a tone color extension board being installed in the musical tone generation device to provide an extended tone color corresponding to an extension of the prescribed tone color,

wherein said tone color extension board comprises

a sequencer for enabling reproduction of an arpeggio pattern in response to the key-operation information which is supplied from the musical tone generation device, and

a second music synthesizer for enabling sequential generation of second musical tones using the extended tone color based on the arpeggio pattern being reproduced, so that the second musical tones using the extended tone color are supplied to the musical tone generation device in which the second musical tones are mixed together with the first musical tones to produce mixed musical tones.

19. A musical tone generation system according to claim 18 wherein the tone color extension board provides a plurality of extended tone colors that differ from original tone colors originally installed in the musical tone generation device in advance, so that each of the plurality of extended tone colors has a decision whether to enable reproduction of the arpeggio pattern.

20. A musical tone generation system according to claim 18 further comprising an effector for imparting an effect to the mixed musical tones.

21. A musical tone generation method comprising the steps of:
reading function setting information from an extension board being installed in a musical tone generation device, wherein the function setting information is provided with respect to at least one extended function installed on the extension board;

001501 242500

incorporating the extended function of the extension board based on the function setting information such that the extended function is set and controlled by operators of the musical tone generation device;

producing extended-function setting information in response to operations applied to the operators with regard to the extended function; and

sending the extended-function setting information to the extension board.

22. A function extending method comprising the steps of:
 installing an extension board with a tone generator;
 providing an extension of at least one sound factor being installed in the tone generator in advance with regard to musical tones; and
 executing an extended function accompanied with the extension of the at least one sound factor of the tone generator.

23. A musical tone generation method applicable to a musical tone generation device installing a tone color extension board, said musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize and generate first musical tones having a prescribed tone color in response to key-operation information;

reproducing a sound pattern in response to the key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension

00750" 64258560
 09585243-053100

board to synthesize and generate second musical tones using an extended tone color based on the sound pattern being reproduced; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

24. A musical tone generation method applicable to a musical tone generation device installing a tone color extension board, said musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize and generate first musical tones using a prescribed tone color in response to key-operation information;

reproducing an arpeggio pattern in response to the key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension board to sequentially generate second musical tones using an extended tone color based on the arpeggio pattern being reproduced; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

25. A machine-readable media storing programs and data that cause a musical tone generation device installing an extension board to perform a musical tone generation method comprising the steps of:

reading function setting information from the extension board with respect to at least one extended function installed on the extension board;

incorporating the extended function of the extension board based on

0958243-053100
001250-64253560

the function setting information such that the extended function is set and controlled by operators of the musical tone generation device;

producing extended-function setting information in response to operations applied to the operators with regard to the extended function; and

sending the extended-function setting information to the extension board.

26. A machine-readable media storing programs and data that cause a tone generator installing an extension board to perform a function extending method comprising the steps of:

providing an extension of at least one sound factor being installed in the tone generator in advance with regard to musical tones; and

executing an extended function accompanied with the extension of the at least one sound factor of the tone generator.

27. A machine-readable media storing programs and data that cause a musical tone generation device installing a tone color extension board to perform a musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize and generate first musical tones having a prescribed tone color in response to key-operation information;

reproducing a sound pattern in response to the key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension

007250" C4258560

board to synthesize and generate second musical tones using an extended tone color based on the sound pattern being reproduced; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

28. A machine-readable media storing programs and data that cause a musical tone generation device installing a tone color extension board to perform a musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize and generate first musical tones using a prescribed tone color in response to key-operation information;

reproducing an arpeggio pattern in response to the key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension board to sequentially generate second musical tones using an extended tone color based on the arpeggio pattern being reproduced; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

0955243 053100